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PATENT ABSTRACTS OF JAPAN

(21) Application number: **57186866**

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(84) Designated contracting states:

(74) Representative:

(54) FORMATION OF AMORPHOUS SILICON FILM

(57) Abstract:

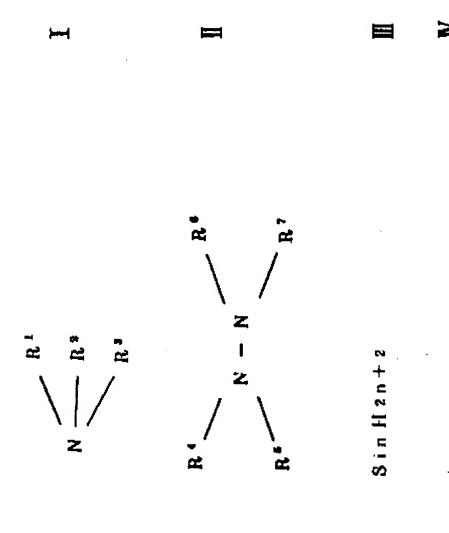
PURPOSE: To increase the growing speed of an amorphous silicon (a-Si) film without deteriorating the characteristics of the film in the manufacture of an a- Si film by a chemical vapor deposition (CVD) method by adding a specified amount of ammonia (deriv.) to a gaseous starting material.

substrate is placed in a decomposition represented by formula III (where n is CONSTITUTION: Ammonia (deriv.) introduced into the furnace optionally where N is the amount of nitrogen in each of R1WR7 is H, alkyl or aryl. A decomposed at about 250W600°C to deposit an a-Si film on the substrate. and/or hydrazine (deriv.) is added to nitrogen, and the silane is thermally formula II is used. In the formulae At this time, said ammonia (deriv.) relation represented by formula IV the silane by an amount satisfying 2) such as disilane or trisilane is together with an inert gas such as hydrazine (deriv.) represented by amount of silicon in the gaseous represented by formula I and/or nydrazine (deriv.), and Si is the furnace, silane of higher order the ammonia (deriv.) and/or

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